
GS1 Canada Barcoding Guidelines:

For Case & Pallet Level Cannabis Products

April 2018



Barcoding Guidelines & Requirements

Case & Pallet Cannabis Products

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The information contained within GTINs and other GS1 identifiers are based on global standards. GS1 barcodes are the only globally recognized barcode. Using global standards means your GS1 barcodes can be used all over the world, across multiple sectors and industries.

More than 6 billion GS1 barcodes
are scanned around the world every day



Key Standards for Barcoding Cannabis



All Cannabis suppliers must go through [GS1](#) to secure their barcode prefix and GTINs. They must provide each package level with a unique barcode.



Barcodes must contain GTIN, Expiry Date & Lot Number



Barcodes must be clear, legible, scannable, and display the human readable numeric code located beneath or beside the barcode.



There should be no truncation of any of the barcodes on any level of packaging.

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An outer package is a package containing a number of consumer packages. Outer packages are often the item level that can be ordered from a supplier or wholesaler. When the outer package has an item number, buyer and seller can be sure that the correct item has been ordered.

Cases and Pallets are set up differently than the point of sale consumer items that go inside them. All the units in each container should share the same UPC or base item barcode. The container code is based on the UPC and includes some additional information about the packaging. All labels must contain both human readable data and barcode(s). Each Case and Pallet must contain the following information:

- ✓ Indicator Digit
- ✓ Space filler 0
- ✓ GS1 company prefix of the Supplier
- ✓ Item number consistent with base item product inside
- ✓ Check digit
- ✓ Lot code
- ✓ Expiration date

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Creating your GTIN for Higher Levels of Packaging

Case codes and pallet codes are created using 14 digit GTIN numbers. You can create these GTINs by adding case indicators before your GS1 Canada issued company prefix.

The container code is based on the UPC item that goes into the case/pallet. This ensures the same item number is consistent throughout the product hierarchy.

The indicator digits you can use are the following:

1, 2, 3, 4, 5, 6, 7 & 8.

The case indicator digits have no relation to the amount of items going into your case and must be followed by a space filler 0.

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Creating your GTIN for Higher Levels of Packaging

Ex.

Strain A – 7 grams = consumer GTIN 123456000032

Case of 6 = 10 12345600003 ?

Case of 12 = 20 12345600003 ?

Case of 24 = 30 12345600003 ?

By Adding the case indicator digit and space filler 0 in front of your base item code, the check digits at the end will change. The prefix and item numbers remain the same. Remember that the case indicator you use should not reflect the quantity of items in the case or pallet.

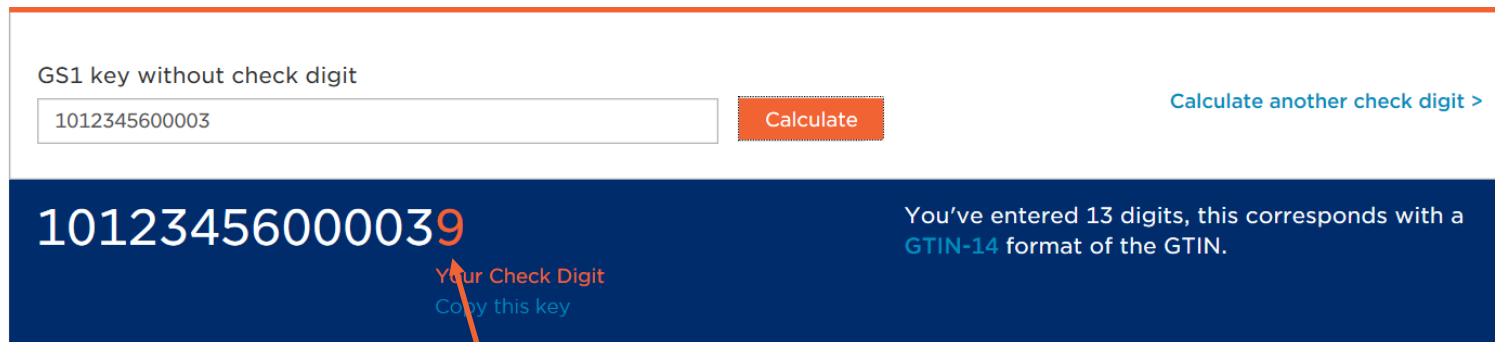
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Calculating your Check Digits

Click this link to access the Check Digit Calculator  <https://www.gs1.org/services/check-digit-calculator>

Enter your case indicator digit followed by a space filler 0. Then add your company prefix, item number and click calculate. Make sure your item number is consistent throughout the hierarchy.



GS1 key without check digit

Calculate

[Calculate another check digit >](#)

10123456000039

Your Check Digit
Copy this key

You've entered 13 digits, this corresponds with a GTIN-14 format of the GTIN.

Your check digit will appear below in orange.

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Calculating your Check Digits

As mentioned in the previous slide, adding the case indicator digit and space filler 0 in front of your base item code will adjust the check digit. Ex. Strain A – 7 grams = consumer GTIN 123456000032

GS1 key without check digit

[Calculate](#) [Calculate another check digit >](#)

123456000032

See this in
GTIN 14 format

Your Check Digit
Copy this key

You've entered 11 digits, this corresponds with
the **GTIN-12** format.

Case of 6 = 10123456000039

GS1 key without check digit

[Calculate](#) [Calculate another check digit >](#)

10123456000039

Your Check Digit
Copy this key

You've entered 13 digits, this corresponds with a
GTIN-14 format of the GTIN.

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Calculating your Check Digits

Continue this process for all higher levels of packaging. Remember you can use case indicator digits 1 through 8 (9 is reserved for Variable Weight Items). Each time you adjust the case indicator digit the check digit will change again.

Case of 6 = 10123456000039

Case of 12 = 20123456000036

Case of 24 = 30123456000033

GS1 key without check digit

[Calculate another check digit >](#)

30123456000033

Your Check Digit
Copy this key

You've entered 13 digits, this corresponds with a GTIN-14 format of the GTIN.

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GS1 Application Identifiers

GS1 Application Identifiers (AIs) are numeric prefixes used in barcodes to define the meaning and format of encoded data elements.

GS1 has defined over a 100 Application Identifiers (AIs). Each Application Identifier is a standard two, three, or four digit numeric code. For the full list of GS1 Application Identifiers and their definitions, please refer to section 3.2 of the [GS1 General Specifications](#).

For Cannabis products the following information and AI's are required:

(01) – GTIN (14 digits)

(17) – Expiry Date (6 digits YYMMDD)

(10) – Lot/Batch (up to 20 alpha-numeric characters)

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Expiry Date & Lot /Batch Number

The Lot Number will be an internal number for each batch/strain of Cannabis grown. This can be up to 20 alpha-numeric characters in length. The Lot information and expiry should match with the UPC barcodes inside the case/pallet.

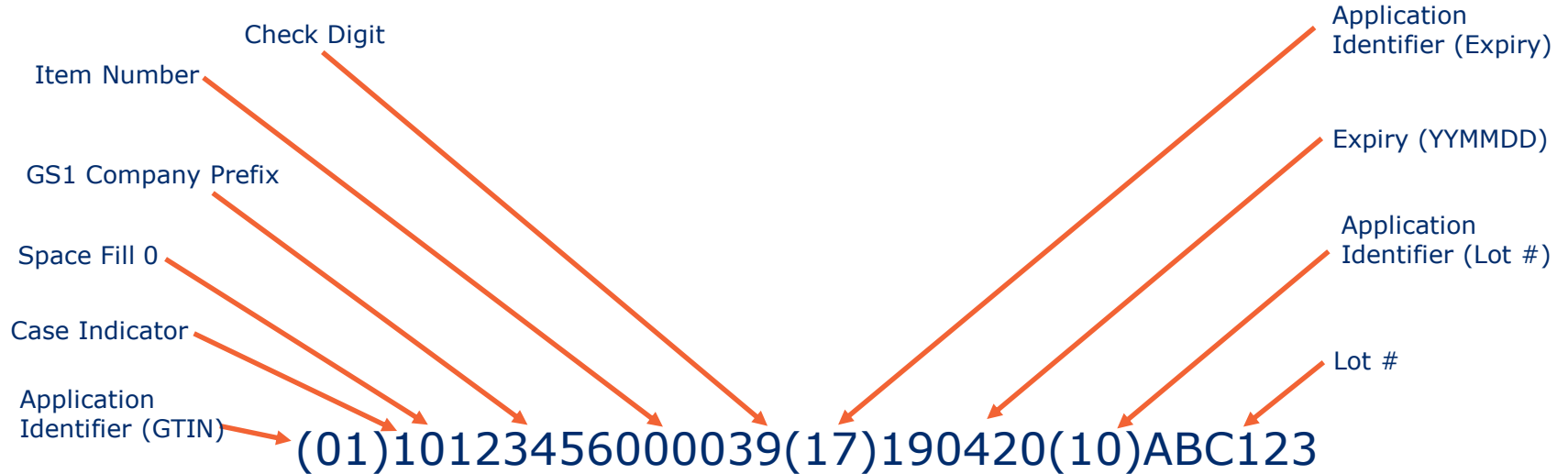
- * Expiry Date must be in YYMMDD format, as per GS1 Standards.
- * **If your product does not have an Expiry Date**, you will still need to keep the AI (Application Identifier) in the barcode symbology and replace the date with the default of **500723**.

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Constructing your code

You can now combine your Case GTIN with the required Application Identifiers and corresponding information. Below is an example of a case GTIN with all required information printed in the GS1-128 format.



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GS1 128

- ✓ The GS1-128 barcode symbol allows additional data to be encoded including the LCBO/OCS mandatory information such as:
 - Expiry Date
 - Batch/Lot Number



(01)1012345600039(17)190420(10)ABC123

* Barcode symbol above is for example purposes only and will not scan

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Human Readable Interpretation

The GS1 standard requires that a textual representation is included under the barcodes to support human readable interpretation. In this text the AI codes must be placed in parentheses. Please note that the AIs are encoded in the barcode without parentheses. If the GS1-128 cannot be read or scanned due to damage, the Human Readable text can be used as backup information.

Below is an example of a GS1-128 with Human Readable Text that includes the following required AIs:

GTIN (01) 10123456000039 Expiry Date (17) 190420 Lot Number (10) ABC123



The Global Language of Business

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* Barcode symbol above is for example purposes only and will not scan

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Recording and tracking your allocated GTINs

We recommend keeping an excel file to keep track of your assigned GTINs and the corresponding product.

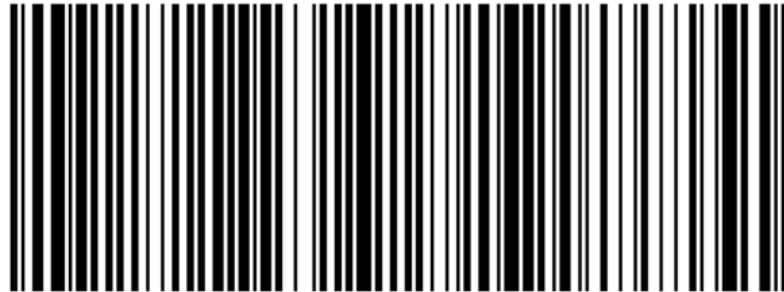
In healthcare and pharmacy, the rules for how GTINs are allocated to products and how they are used are slightly different to other sectors. Products in healthcare and pharmacy are given what is known as a permanent GTINs. Permanent GTINs never expire. Each GTIN will always correspond to its original product, no matter how long it has been since that product was manufactured. This enables traceability of all medical products back to the patients that have used them.

Category	THC / CBD Content	Sativa / Indica	Filler Digits	Prefix	Item Number	Check Digit	Full GTIN
Dried Bud	18-19% / <1%	Hybrid	00	123456	00001	8	123456000018
Dried Bud	18-19% / <1%	Hybrid	00	123456	00002	5	123456000025
Dried Bud	18-19% / <1%	Hybrid	00	123456	00003	2	123456000032
Dried Bud	18-19% / <1%	Hybrid	00	123456	00004	9	123456000049
Dried Bud	16-18% / <1%	Sativa	00	123456	00005	6	123456000056
Dried Bud	16-18% / <1%	Sativa	00	123456	00006	3	123456000063
Dried Bud	16-18% / <1%	Sativa	00	123456	00007	0	123456000070
Dried Bud	16-18% / <1%	Sativa	00	123456	00008	7	123456000087
Oils/Tinctures	16-18% / <1%	Indica	00	123456	00009	4	123456000094
Oils/Tinctures	16-18% / <1%	Indica	00	123456	00010	0	123456000100
Oils/Tinctures	0-1% / <12%	CBD	00	123456	00011	7	123456000117
Oils/Tinctures	0-1% / <12%	CBD	00	123456	00012	4	123456000124
Edibles	3% / <1%	Indica	00	123456	00013	1	123456000131
Edibles	3% / <1%	Indica	00	123456	00014	8	123456000148

Printing Your Barcodes

- ✓ You can [access Solution Providers for printing barcode symbols here](#)
- ✓ Provide your printer with the GTINs you need printed and the type of barcode symbology to use (GS1-128)

(01)10123456000015 (17)190420 (10)ABC123
(01)20123456000022 (17)190420 (10)ABC123
(01)30123456000059 (17)190420 (10)CAN127
(01)40123456000066 (17)190420 (10)CAN127



(01)10123456000039(17)190420(10)ABC123

* Barcode symbol above is for example purposes only and will not scan

Barcode Printing Guidelines

- ✓ Ensure your barcode includes the required content for LCBO/OCS including Expiry and Lot/Batch information
- ✓ Ensure that the Human Readable Interpretation is included under or beside the barcode graphic
- ✓ Barcodes can be printed on the packaging or on labels.
- ✓ Use the correct Barcode Printing Format for Cases and Pallets, the GS1-128
- ✓ Create and follow a quality control procedure and test code quality at each stage of the design process.
- ✓ Choose printing substrates that avoid smudged ink and distortion of barcodes.
- ✓ Ensure the barcode shows crisp, clear well defined bars to avoid readability issues when scanned.

